## AMENDMENTS TO THE SPECIFICATION

**Amend the following paragraph on page 36, lines 31-38, as follows:**

The fragment was purified by means of a ~~Gene-Clean~~ GENE CLEAN® kit (for purifying DNA fragments from agarose gels) (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® (vector system for cloning blunt end PCR fragments) (Stratagene GmbH, Heidelberg). The correctness of the sequence was checked by sequencing. This revealed that the isolated gene codes for an additional amino acid. It contains the three bases TAC (coding for tyrosine) in front of nucleotide N429 in the quoted sequence (Denoya et al., 1994).

**Amend the following paragraph on page 38, lines 1-9, as follows:**

The fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector PCR-Script (Stratagene GmbH, Heidelberg). The correctness of the sequence was checked by sequencing. It was cut as BamHI fragment out of the vector ~~PCR-Script~~ PCR SCRIPT® and ligated into a correspondingly cut pBinAR vector which additionally contains the transit peptide of transketolase for introducing the gene product into the plastids. The result was the plasmid pBinAR-TP-HPPD (Figure 12).

**Amend the following paragraph on page 38, lines 30-46, as follows:**

The 35S promoter, the transketolase transit peptide, the DOXS gene and the polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al., 1984) for termination of transcription was isolated by PCR from the plasmid pBinAR-TP-DOXS. An EcoRI cleavage site was attached to each of the oligonucleotides for the promoter and terminator sequence. The sequence of the oligonucleotide which anneals onto the promoter (in italics) is 5'-ATGAATTC*CATGGAGTCAAAGATTCAAATAGA*-3', and that of the oligonucleotide which anneals onto the terminator sequence (in italics) is 5'-ATGAATTC*GGACAATCAGTAAATTGAA-CGGAG*-3'. The fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® (Stratagene GmbH, Heidelberg). The correctness of the sequence was checked by sequencing (SEQ ID No. 3). It was transferred as EcoRI fragment from the ~~PCR-Script~~ PCR SCRIPT® vector into the correspondingly cut vector pBin19 (Bevan, 1984).

**Amend the following paragraph on page 42, lines 36-47, and page 43, lines 1-6 as follows:**

The fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® from Stratagene GmbH, Heidelberg. The correctness of the fragment was checked by sequencing (SEQ ID No. 7). The gene was cloned by means of the restriction cleavage sites attached to the sequence by the primers as BamHI/SalI fragment into the

correspondingly cut vector BinAR-Hyg. The latter contains the 35S promoter of cauliflower mosaic virus and the polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al., EMBO J. 3 (1984), 835-846) for termination of transcription. The plasmid confers on plants resistance to the antibiotic hygromycin and is thus suitable for superinfection of plants with kanamycin resistance. Since the plastid transit peptide of GGPPOR was also cloned, the protein ought to be transported into the plastids in transgenic plants. The construct is depicted in Figure 14. The fragments have the following significance:

**Amend the following paragraph on page 43, lines 34-47, page 44, lines 1-3, as follows:**

The 35S promoter, the transketolase transit peptide, the DOXS gene and the polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al., 1984) for termination of transcription was isolated from the plasmid pBinAR-TP-DOXS by PCR. An EcoRI cleavage site was attached in each case to the oligonucleotides for the promoter and the terminator sequence. The sequence of the oligonucleotide which anneals onto the promoter (in italics) is 5'-ATGAATTC*CATGGAGTCAAAGATTCAAATAGA*-3', and that of the oligonucleotide which anneals onto the terminator sequence (in italics) is 5'-ATGAATTC*GGACAATCAGTAAATTGAACGGAG*-3'. The fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® from Stratagene GmbH, Heidelberg. The correctness of the sequence was checked by sequencing. It was transferred from the ~~PCR-Script~~ PCR SCRIPT® vector as EcoRI fragment into the correspondingly cut vector

pBin19 (Bevan, Nucleic Acids Res. 12 (1984), 8711-8721).

**Amend the following paragraph on page 44, lines 5-23 as follows:**

The 35S promoter, the GGPPOR gene and the polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al., 1984) for termination of transcription was isolated from the plasmid pBinARHyg-GGPPOR by PCR. An XbaI cleavage site was attached in each case to the oligonucleotides for the promoter and the terminator. The sequence of the oligonucleotide which anneals onto the promoter (in italics) is 5'-ATTCTAGA*CATGGAGTCAAA-GATTCAAATAGA*-3', and that of the oligonucleotide which anneals onto the terminator sequence (in italics) is 5'-ATTCTAGA*GGACAA-TCAGTAAATTGAACGGAG*-3'. The fragment was purified using a ~~Gene Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information onto the vector ~~PCR-Script~~ PCR SCRIPT® from Stratagene GmbH, Heidelberg. The correctness of the sequence was checked by sequencing. It was transferred from the ~~PCR-Script~~ PCR SCRIPT® vector as XbaI fragment into the correspondingly cut vector which already contained, as described above, the DOXS sequence. The result was the construct pBinAR-DOXS-GGPPOR (Figure 15), whose fragments have the following significance:

Fragment A (529 bp) comprises the 35S promoter of cauliflower mosaic virus (nucleotides 6909 to 7437 of cauliflower mosaic virus). Fragment B comprises the transit peptide of the plastidic transketolase. Fragment E comprises the DOXS gene. Fragment D comprises the

polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al., 1984) for termination of transcription. Fragment F comprises the GGPPOR gene including the intrinsic plastid transit sequence.

**Amend the following paragraph on page 45, lines 1-13, as follows:**

The fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® from Stratagene GmbH, Heidelberg. The correctness of the sequence was checked by sequencing. It was cut out of the vector ~~PCR-Script~~ PCR SCRIPT® as BamHI fragment and ligated into a correspondingly cut pBinAR vector which additionally contains the transit peptide of transketolase for introducing the gene product into plastids. The result was the plasmid pBinAR-TP-p-HPPD.

**Amend the following paragraph on page 45, lines 29-46, as follows:**

For the cloning, the 35S promoter, the transketolase transit peptide, the p-HPPD gene and the polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al. 1984) for termination of transcription was isolated from the plasmid pBinAR-TP-p-HPPD by PCR. A HindIII cleavage site was attached in each case to the oligonucleotides for the promoter and the terminator. The sequence of the oligonucleotide which anneals onto the 5' region of the promoter (in italics) is 5'-ATAAGCTT*CATGGAGTCAAA-GATTCAAATAGA*-3', and that of the oligonucleotide which anneals onto the termination sequence (in italics) is 5'-

ATAAGCTT*GGAC-AATCAGTAAATTGAACGGAG*-3'. The resulting fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® from Stratagene GmbH, Heidelberg. The correctness of the sequence was checked by sequencing. It was transferred as HindIII fragment from this ~~PCR-Script~~ PCR SCRIPT® vector into the correspondingly cut vector pBin19 (Bevan, 1984, Nucleic Acids Res. 12, 8711-8721).

**Amend the following paragraph on page 46, lines 1-17, as follows:**

The 35S promoter, the transketolase transit peptide, the DOXS gene and the polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al., 1984) for termination of transcription was isolated from the plasmid pBinAR-TP-DOXS by PCR. An EcoRI cleavage site was attached in each case to the oligonucleotides for the promoter and the terminator sequence. The sequence of the oligonucleotide which anneals onto the promoter (in italics) is 5'-ATGAATTC*CATGGAGTCAAAGATTCAAATAGA*-3', and that of the oligonucleotide which anneals onto the terminator sequence (in italics) is 5'-ATGAATTC*GGACAATCAGTAAATTGAACGGAG*-3'. The fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® from Stratagene GmbH, Heidelberg. The correctness of the sequence was checked by sequencing. It was transferred from the ~~PCR-Script~~ PCR SCRIPT® vector as EcoRI fragment into the correspondingly cut vector

which already contained the HPPD sequence as described above.

**Amend the following paragraph on page 46, lines 19-37, as follows:**

The 35S promoter, the GGPPOR gene and the polyadenylation signal of gene 3 of the T DNA of the Ti plasmid pTIACH5 (Gielen et al., 1984) for termination of transcription was isolated from the plasmid pBinARHyg-GGPPOR by PCR. An XbaI cleavage site was attached in each case to the oligonucleotides for the promoter and the terminator. The sequence of the oligonucleotide which anneals onto the promoter (in italics) is 5'-ATTCTAGA*CATGGAGTCAAA-GATTCAAATAGA*-3', and that of the oligonucleotide which anneals onto the terminator sequence (in italics) is 5'-ATTCTAGA*GGACAA-TCAGTAAATTGAACGGAG*-3'. The fragment was purified using a ~~Gene-Clean~~ GENE CLEAN® kit (Dianova GmbH, Hilden) and cloned in accordance with the manufacturer's information into the vector ~~PCR-Script~~ PCR SCRIPT® from Stratagene GmbH, Heidelberg. The correctness of the sequence was checked by sequencing. It was transferred from the ~~PCR-Script~~ PCR SCRIPT® vector as XbaI fragment into the correspondingly cut vector which already contained the HPPD and DOXS sequences as described above. The result was the construct pBinAR-DOXS-GGPPOR-HPPD (Figure 16), whose fragments have the following significance: